



2003 Cranmore Biodiesel Initiative

with Granite State Clean Cities Coalition, NH
Department of Environmental Services, and
the Office of Energy Planning

Initial Program Goals

- Program goal was to study whether B20 Biodiesel could be used in heavy equipment in extreme cold weather conditions.
- Cranmore's interest was to support efforts that will help fight global warming and to help support measures against foreign energy dependency.



Cranmore's Use of Biodiesel

- Four Bombardier Grooming Machines, Two Auxiliary Lift Engines, and a Backhoe
- Installed a 4,000 gallon above ground tank and received biodiesel from World Energy in Chelsea, MA (at roughly 84 cents more a gallon than traditional diesel)



Biodiesel Program Results

- Results at the end of the 2005-06 season from Clean Air Cool Planet report.



Biodiesel Program Results



- 60,000 gallons of B20 used, 12,000 gallons of petroleum saved.
- Machines ran with same efficiency and ran cleaner with less smoke and fumes.

Biodiesel Program Results



- Engines ran cleaner and air filters were noticeably cleaner.
- Fewer fuel filter failures.
- No gelling or problems with fuel stored in 4,000 gallon above ground storage tank.

Biodiesel Program Results



- 20% to 40% reduction in harmful, disease causing air pollution.
- Air Quality: 10% reduction in lung-clogging particles; 20% reduction in sulfur dioxide emissions; reduction in carbon dioxide emissions of more than 100 tons.

Biodiesel Program Results



- Mechanics confirmed that work environment was healthier.
- Energy savings is equal to avoiding the consumption of more than 180 barrels of oil or taking 13.8 vehicles off the road for one year.

Conclusion

- B20 Biodiesel can be used effectively with heavy equipment under cold eastern conditions.



Important Aspects

- Proper mix of B20
- Price of biodiesel is now the same as regular diesel
- More fuel distribution centers have biodiesel which cuts transportation costs
- B20 is classified for on-road use so you have to submit to the State and to Federal for a tax rebate if used for off-road use

Important Aspects

- Great public relations opportunity with the media and with guests
 - Sustainable Business Award from state of NH
 - NH Chronicle feature story
 - One of the resort's on-going top stories – 679 webpages on the search term “Cranmore Biodiesel”!
- It's the right thing to do!

